

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/690, 3964
Source: JFW/6
Date Processed by STIC: 03/02/2007

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/690, 396A CRF Edit Date: 03/02/2007
Edited by: D A

— Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

— Corrected the SEQ ID NO. Sequence numbers edited were:

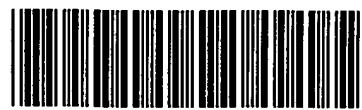
— Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

— Deleted: invalid beginning/end-of-file text ; page numbers

— Inserted mandatory headings/numeric identifiers, specifically:

— Moved responses to same line as heading/numeric identifier, specifically:

— Other:



IFW16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/690,396A

DATE: 03/02/2007
TIME: 11:03:19

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03012007\J690396A.raw

```

5 <110> APPLICANT: Wigler, Michael H.
6      Sorge, Joseph A.
8 <120> TITLE OF INVENTION: Method for generating libaries of
9      antibody genes comprising amplification of diverse antibody
10     DNAs and methods for using these libraries for the
11     production of diverse antigen combining molecules
16 <130> FILE REFERENCE: STRATAG.7C2DV2C1
C--> 18 <140> CURRENT APPLICATION NUMBER: US/10/690,396A
19 <141> CURRENT FILING DATE: 2003-10-20
21 <150> PRIOR APPLICATION NUMBER: US 08/315,269
22 <151> PRIOR FILING DATE: 1994-09-29
24 <150> PRIOR APPLICATION NUMBER: US 07/919,370
25 <151> PRIOR FILING DATE: 1992-07-23
27 <150> PRIOR APPLICATION NUMBER: US 07/464,350
28 <151> PRIOR FILING DATE: 1990-01-11
30 <150> PRIOR APPLICATION NUMBER: US 08/997,195
31 <151> PRIOR FILING DATE: 1997-12-23
33 <150> PRIOR APPLICATION NUMBER: US 09/439,732
34 <151> PRIOR FILING DATE: 1999-11-12
36 <150> PRIOR APPLICATION NUMBER: PCT/US91/00209
37 <151> PRIOR FILING DATE: 2001-04-26
39 <160> NUMBER OF SEQ ID NOS: 7
41 <170> SOFTWARE: FastSEQ for Windows Version 4.0
43 <210> SEQ ID NO: 1
44 <211> LENGTH: 313
45 <212> TYPE: DNA
46 <213> ORGANISM: Artificial Sequence
48 <220> FEATURE:
49 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
51 <220> FEATURE:
52 <221> NAME/KEY: CDS
53 <222> LOCATION: (1)...(312)
55 <400> SEQUENCE: 1
56 agt cag tcc ttc cca aat gtc ttc ccc ctc gtc tcc tgc gag agc ccc 48
57 Ser Gln Ser Phe Pro Asn Val Phe Pro Leu Val Ser Cys Glu Ser Pro
58   1           5           10          15
60 ctg tct gat aag aat ctg gtg gcc atg ggc tgc cta gcc cggttac 96
61 Leu Ser Asp Lys Asn Leu Val Ala Met Gly Cys Leu Ala Arg Asp Phe
62   20          25          30
64 ctg ccc agc acc att tcc ttc acc tgg aac tac cag aac aac act gaa 144
65 Leu Pro Ser Thr Ile Ser Phe Thr Trp Asn Tyr Gln Asn Asn Thr Glu
66   35          40          45
68 gtc atc cag ggt atc aga acc ttc cca aca ctg agg aca ggg ggc aag 192

```

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```

69 Val Ile Gln Gly Ile Arg Thr Phe Pro Thr Leu Arg Thr Gly Gly Lys
70      50          55          60
72 tac cta gcc acc tcg cag gtg ttg ctg tct ccc aag aac agc atc ctt gaa  240
73 Tyr Leu Ala Thr Ser Gln Val Leu Leu Ser Pro Lys Ser Ile Leu Glu
74   65           70           75           80
76 ggt tca gat gaa tac ctg gta tgc aaa atc cac tac gga ggc aaa aac  288
77 Gly Ser Asp Glu Tyr Leu Val Cys Lys Ile His Tyr Gly Gly Lys Asn
78       85           90           95
80 aga gat ctg cat gtg ccc att cca g
81 Arg Asp Leu His Val Pro Ile Pro
82       100
85 <210> SEQ ID NO: 2
86 <211> LENGTH: 104
87 <212> TYPE: PRT
88 <213> ORGANISM: Artificial Sequence
90 <220> FEATURE:
91 <223> OTHER INFORMATION: Synthesized Peptide
93 <400> SEQUENCE: 2
94 Ser Gln Ser Phe Pro Asn Val Phe Pro Leu Val Ser Cys Glu Ser Pro
95   1           5           10          15
96 Leu Ser Asp Lys Asn Leu Val Ala Met Gly Cys Leu Ala Arg Asp Phe
97   20           25           30
98 Leu Pro Ser Thr Ile Ser Phe Thr Trp Asn Tyr Gln Asn Asn Thr Glu
99   35           40           45
100 Val Ile Gln Gly Ile Arg Thr Phe Pro Thr Leu Arg Thr Gly Gly Lys
101   50           55           60
102 Tyr Leu Ala Thr Ser Gln Val Leu Leu Ser Pro Lys Ser Ile Leu Glu
103   65           70           75           80
104 Gly Ser Asp Glu Tyr Leu Val Cys Lys Ile His Tyr Gly Gly Lys Asn
105   85           90           95
106 Arg Asp Leu His Val Pro Ile Pro
107       100
110 <210> SEQ ID NO: 3
111 <211> LENGTH: 313
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
118 <220> FEATURE:
119 <221> NAME/KEY: misc_feature
120 <222> LOCATION: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45,
121     48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87,
122     90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123,
123     126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 159,
124     162
125 <223> OTHER INFORMATION: n = A,T,C or G
127 <220> FEATURE:
128 <221> NAME/KEY: misc_feature
129 <222> LOCATION: 165, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198,

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RAW SEQUENCE LISTING DATE: 03/02/2007
PATENT APPLICATION: US/10/690,396A TIME: 11:03:19

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03012007\J690396A.raw

```

130      201, 204, 207, 210, 213, 216, 219, 222, 225, 228, 231, 234,
131      237, 240, 243, 246, 249, 252, 255, 258, 261, 264, 267, 270,
132      273, 276, 279, 282, 285, 288, 291, 294, 297, 300, 303
133 <223> OTHER INFORMATION: n = A,T,C or G
135 <220> FEATURE:
136 <221> NAME/KEY: misc_feature
137 <222> LOCATION: 306, 309, 312
138 <223> OTHER INFORMATION: n = A,T,C or G
140 <400> SEQUENCE: 3
W--> 141 agncantcnt tnccnaangt nttncnctn gtntcntgng anagnccnct ntcnganaan 60
W--> 142 aanctngtng cnatngcntg nctngcncgn ganttnctnc cnagnacnat ntcnttnacn 120
W--> 143 tgnaantanc anaanaaanac ngangtnatn canggnatna gnacnttncc nacnctnagn 180
W--> 144 acngggggna antanctngc nacntcnan gtnttntctnt cnccnaanag natnctngan 240
W--> 145 ggntcngang antanctngt ntgnaanatn cantanggng gnaanaanag nganctnanc 300
W--> 146 gtnccnatnc cng                                         313
148 <210> SEQ ID NO: 4
149 <211> LENGTH: 8
150 <212> TYPE: PRT
151 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
156 <400> SEQUENCE: 4
157 Ala Met Gly Cys Leu Ala Arg Asp
158   1           5
161 <210> SEQ ID NO: 5
162 <211> LENGTH: 24
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
169 <400> SEQUENCE: 5
170 gccatgggct gccttagccccg ggac                                         24
172 <210> SEQ ID NO: 6
173 <211> LENGTH: 24
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
180 <400> SEQUENCE: 6
181 gccatgggct gccttagcgcg cgac                                         24
183 <210> SEQ ID NO: 7
184 <211> LENGTH: 104
185 <212> TYPE: PRT
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <221> NAME/KEY: VARIANT
190 <222> LOCATION: 1, 2, 4, 6, 8, 13-15, 19-21, 25, 27, 31, 32, 35, 37, 39,
191     41-46, 48, 50, 51, 53, 54, 56, 60, 64, 65, 70, 72, 76-78,
192     80, 83-85, 88-92, 95-98, 100, 103

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/690,396A

DATE: 03/02/2007
TIME: 11:03:19

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03012007\J690396A.raw

193 <223> OTHER INFORMATION: Xaa = Amino Acid
195 <220> FEATURE:
196 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
198 <400> SEQUENCE: 7
W--> 199 Xaa Xaa Ser Xaa Pro Xaa Val Xaa Pro Leu Val Ser Xaa Xaa Xaa Pro
200 1 5 10 15
W--> 201 Leu Ser Xaa Xaa Xaa Leu Val Ala Xaa Gly Xaa Leu Ala Arg Xaa Xaa
202 20 25 30
W--> 203 Leu Pro Xaa Thr Xaa Ser Xaa Thr Xaa Xaa Xaa Xaa Xaa Xaa Thr Xaa
204 35 40 45
W--> 205 Val Xaa Xaa Gly Xaa Xaa Thr Xaa Pro Thr Leu Xaa Thr Gly Gly Xaa
206 50 55 60
W--> 207 Xaa Leu Ala Thr Ser Xaa Val Xaa Leu Ser Pro Xaa Xaa Xaa Leu Xaa
208 65 70 75 80
W--> 209 Gly Ser Xaa Xaa Xaa Leu Val Xaa Xaa Xaa Xaa Xaa Gly Gly Xaa Xaa
210 85 90 95
W--> 211 Xaa Xaa Leu Xaa Val Pro Xaa Pro
212 100

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/02/2007
PATENT APPLICATION: US/10/690,396A TIME: 11:03:20

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03012007\J690396A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 3,6,9,12,15,18,21,24,27,30,33,36,39,42,45,48,51,54,57,60,63
Seq#:3; N Pos. 66,69,72,75,78,81,84,87,90,93,96,99,102,105,108,111,114,117
Seq#:3; N Pos. 120,123,126,129,132,135,138,141,144,147,150,153,156,159,162
Seq#:3; N Pos. 165,168,171,174,177,180,183,186,189,192,195,198,201,204,207
Seq#:3; N Pos. 210,213,216,219,222,225,228,231,234,237,240,243,246,249,252
Seq#:3; N Pos. 255,258,261,264,267,270,273,276,279,282,285,288,291,294,297
Seq#:3; N Pos. 300,303,306,309,312
Seq#:7; Xaa Pos. 1,2,4,6,8,13,14,15,19,20,21,25,27,31,32,35,37,39,41,42,43
Seq#:7; Xaa Pos. 44,45,46,48,50,51,53,54,56,60,64,65,70,72,76,77,78,80,83
Seq#:7; Xaa Pos. 84,85,88,89,90,91,92,95,96,97,98,100,103

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/690,396A

DATE: 03/02/2007
TIME: 11:03:20

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03012007\J690396A.raw

L:18 M:270 C: Current Application Number differs, Replaced Current Application Number
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:60
L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:180
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:240
L:146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:300
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:16
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:32
L:205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:48
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:64
L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:80
L:211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:96

**Raw Sequence Listing before editing,
for reference only**



IFW16

RAW SEQUENCE LISTING DATE: 02/27/2007
 PATENT APPLICATION: US/10/690,396A TIME: 08:47:26

Input Set : A:\STRATAG.7C2DV2C1 SUB SEQ LIST.TXT
 Output Set: N:\CRF4\02272007\J690396A.raw

W--> 2 STRATAG 7C2DV2C1 SUB SEQ LIST.TXT

deleted

5 <110> APPLICANT: Wigler, Michael H.
 6 Sorge, Joseph A.
 8 <120> TITLE OF INVENTION: Method for generating libraries of
 9 antibody genes comprising amplification of diverse antibody
 10 DNAs and methods for using these libraries for the
 11 production of diverse antigen combining molecules
 16 <130> FILE REFERENCE: STRATAG.7C2DV2C1
 C--> 18 <140> CURRENT APPLICATION NUMBER: US/10/690,396A
 19 <141> CURRENT FILING DATE: 2003-10-20
 21 <150> PRIOR APPLICATION NUMBER: US 08/315,269
 22 <151> PRIOR FILING DATE: 1994-09-29
 24 <150> PRIOR APPLICATION NUMBER: US 07/919,370
 25 <151> PRIOR FILING DATE: 1992-07-23
 27 <150> PRIOR APPLICATION NUMBER: US 07/464,350
 28 <151> PRIOR FILING DATE: 1990-01-11
 30 <150> PRIOR APPLICATION NUMBER: US 08/997,195
 31 <151> PRIOR FILING DATE: 1997-12-23
 33 <150> PRIOR APPLICATION NUMBER: US 09/439,732
 34 <151> PRIOR FILING DATE: 1999-11-12
 36 <150> PRIOR APPLICATION NUMBER: PCT/US91/00209
 37 <151> PRIOR FILING DATE: 2001-04-26
 39 <160> NUMBER OF SEQ ID NOS: 7
 41 <170> SOFTWARE: FastSEQ for Windows Version 4.0

Does Not Comply
 Corrected Diskette Needed
(pg-1,2)

ERRORED SEQUENCES

183 <210> SEQ ID NO: 7
 184 <211> LENGTH: 104
 185 <212> TYPE: PRT
 186 <213> ORGANISM: Artificial Sequence
 188 <220> FEATURE:
 189 <221> NAME/KEY: VARIANT
 190 <222> LOCATION: 1, 2, 4, 6, 8, 13-15, 19-21, 25, 27, 31, 32, 35, 37, 39,
 191 41-46, 48, 50, 51, 53, 54, 56, 60, 64, 65, 70, 72, 76-78,
 192 80, 83-85, 88-92, 95-98, 100, 103
 193 <223> OTHER INFORMATION: Xaa = Amino Acid
 195 <220> FEATURE:
 196 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
 198 <400> SEQUENCE: 7

W--> 199 Xaa Xaa Ser Xaa Pro Xaa Val Xaa Pro Leu Val Ser Xaa Xaa Xaa Pro

200 1

5

10

15

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/690,396A

DATE: 02/27/2007
TIME: 08:47:26

Input Set : A:\STRATAG.7C2DV2C1 SUB SEQ LIST.TXT
Output Set: N:\CRF4\02272007\J690396A.raw

201 Leu Ser Xaa Xaa Xaa Leu Val Ala Xaa Gly Xaa Leu Ala Arg Xaa Xaa
202 20 25 30
203 Leu Pro Xaa Thr Xaa Ser Xaa Thr Xaa Xaa Xaa Xaa Xaa Xaa Thr Xaa
204 35 40 45
205 Val Xaa Xaa Gly Xaa Xaa Thr Xaa Pro Thr Leu Xaa Thr Gly Gly Xaa
206 50 55 60
207 Xaa Leu Ala Thr Ser Xaa Val Xaa Leu Ser Pro Xaa Xaa Xaa Leu Xaa
208 65 70 75 80
209 Gly Ser Xaa Xaa Xaa Leu Val Xaa Xaa Xaa Xaa Xaa Gly Gly Xaa Xaa
210 85 90 95
211 Xaa Xaa Leu Xaa Val Pro Xaa Pro
212 100

E--> 217 3

deleted

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/690,396A

DATE: 02/27/2007

TIME: 08:47:27

Input Set : A:\STRATAG.7C2DV2C1 SUB SEQ LIST.TXT
Output Set: N:\CRF4\02272007\J690396A.raw

L:2 M:259 W: Allowed number of lines exceeded, (1) GENERAL INFORMATION:
L:18 M:270 C: Current Application Number differs, Replaced Current Application Number
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
M:341 Repeated in SeqNo=7
L:217 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:7